WHAT IS CLAIMED IS:

1.   In an Ethernet protocol network having a plurality of platforms, each
serving a plurality of customers, a method of routing at least one information frame from
at least one sending customer site served by a first platform to at least one receiving
customer site served by a second platform, comprising the steps of:

(a) receiving at said first platform said one frame from said one sending customer;

(b) overwriting said one frame with a customer descriptor that identifies said
sending customer;

(c) routing the frame on the network to said second platform; and

(d) delivering the frame to the receiving customer site by mapping the customer
descriptor to the receiving customer.

2.   The method according to claim 1 wherein the mapping step includes the
step of mapping the customer descriptor to a customer Virtual Private Networks (VPN)
associated with the receiving customer.

3.   The method according to claim 1 further including the steps of:
providing the customer descriptor with a quality of service indicator that specifies
the quality of service level afforded to the accepted frame; and
transmitting the frame to the receiving customer with the quality of service level
specified by the quality of service indicator provided within the customer descriptor.

4.   The method according to claim 1 wherein the mapping step includes the
step of mapping the customer descriptor to a corresponding one of a plurality of Frame
Relay and ATM Permanent Virtual Circuits associated with the receiving customer.

5.   The method according to claim 1 wherein the mapping step includes the
step of mapping the customer descriptor to one a plurality of Multi-Protocol Label
Switching tunnels associated with the receiving customer.

1   6.   The method according to claim 1 wherein the mapping step includes the

2   step of mapping the customer descriptor to one of a plurality of different service networks

3   associated with the receiving customer.

1   7.   The method according to claim 1 wherein the step of overwriting the

2   frame includes the step of overwriting a Virtual LAN Identifier (VLAN) field within the

3   frame.

1   8.   The method according to claim 1 wherein the step overwriting the frame

2   includes the step of overwriting a source address field within the information frame.

1   9.   The method according to claim 1 wherein the step overwriting the frame

2   includes the step inserting a shim header containing the customer descriptor.

1   10.   In an Ethernet protocol network having a plurality of platforms, each

2   serving a plurality of customers, a method of routing at least one information frame from

3   at least one sending customer served by a first platform to at least one receiving customer

4   served by a second platform, comprising the steps of:

5   (a) receiving at said first platform said one frame from said one sending customer,

6   said one frame containing a Virtual LAN identifier (VLAN) field;

7   (b) overwriting VLAN field in said one frame with a customer descriptor that

8   identifies said sending customer (c) routing the frame on the network to said second

9   platform; and

10   (d) delivering the frame to the receiving customer by mapping the customer

11   descriptor to the receiving customer.

1   11.   The method according to claim 10 wherein the mapping step includes the

2   step of mapping the customer descriptor to a customer Virtual Private Networks (VPN)

3   associated with the receiving customer.

1   12.   The method according to claim 10 further including the steps of:

2   providing the customer descriptor with a quality of service indicator that specifies

3   the quality of service level afforded to the accepted frame; and

4   transmitting the frame to the receiving customer with the quality of service level

5   specified by the quality of service indicator provided within the customer descriptor.

1   13.   The method according to claim 10 wherein the mapping step includes the

2   step of mapping the customer descriptor to a corresponding one of a plurality of Frame

3   Relay and ATM Permanent Virtual Circuits associated with the receiving customer.

1   14.   The method according to claim 10 wherein the mapping step includes the

2   step of mapping the customer descriptor to one of a plurality of Multi-Protocol Label

3   Switching tunnels associated with the receiving customer.

1   15.   The method according to claim 10 wherein the mapping step includes the

2   step of mapping the customer descriptor to one of a plurality of different service networks

3   in associated with the receiving customer.

1   16.   An Ethernet protocol network comprising:

2   a fiber ring infrastructure; and

3   a plurality of platforms coupled to the fiber ring infrastructure, each platform

4   serving at least one customer for statistically multiplexing information frames onto the

5   fiber ring infrastructure from said one customer and for statistically de-multiplexing

6   information frames off the fiber ring infrastructure to the one customer

7   wherein each platform sending a frame overwrites said frame with a customer

8   descriptor that identifies the sending customer; and routes the frame on the network to a

9   receiving site; and

10   wherein each platform delivering a frame to the receiving customer does so by

11   mapping the customer descriptor to the receiving customer.

1   17.   The apparatus according to claim 16 wherein the receiving platform maps

2   the customer descriptor through a provider edge router to a customer Virtual Private

3   Networks (VPN) associated with the receiving customer.

1   18.   The apparatus according to claim 16 wherein the customer descriptor

2   includes quality of service level information.

1   19.   The apparatus according to claim 16 wherein the receiving platform maps

2   the customer descriptor through an ATM switch router to a corresponding one of a

3   plurality of Frame Relay and ATM Permanent Virtual Circuits associated with the

4   receiving customer.

1   20.   The apparatus according to claim 16 wherein the receiving platform maps

2   the customer descriptor through a provider edge router to one a plurality of Multi-

3   Protocol Label Switching tunnels associated with the receiving customer.

1   21.   The apparatus according to claim 16 wherein the receiving platform maps

2   the customer descriptor through a provider edge router to one of a plurality of different

3   service networks in associated with the receiving customer.

1   22.   The apparatus according to claim 16 wherein the sending platform

2   overwrites a Virtual LAN Identifier (VLAN) field within the frame with the customer

3   descriptor.

1   23.   The apparatus according to claim 16 wherein the sending platform

2   overwrites a source address field within the information frame with the customer

3   descriptor.

1   24.   The method according to claim 16 wherein the sending platform inserts

2   into the frame a shim header containing the customer descriptor.